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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,975	06/27/2005	Masami Nishikawa	42479-8600	5651

21611 7590 02/22/2007

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EXAMINER	
KRISHNAMURTHY, RAMESH	
ART UNIT	**PAPER NUMBER**
3753	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,975	NISHIKAWA ET AL.	
	Examiner	Art Unit	
	Ramesh Krishnamurthy	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213. .

Disposition of Claims

4)☒ Claim(s) *3 – 6, 8 – 12 and 14 – 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3 – 6, 8 – 12 and 14 – 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 December 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

This office action is responsive to communications filed December 4, 2006.

Claims 3 – 6, 8 – 12 and 14 – 18 are pending.

1. The previously indicated allowability of some of the claims is withdrawn in view of the newly discovered reference(s) to Redemann et al. Rejections based on the newly cited reference(s) follow.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 – 6, 8 – 12 and 14 – 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Each of the independent claims recites the limitation "a non-linear passageway". This appears to be a double inclusion of the limitation "a fluid passageway" recited in line 4 of each claim. Also, additionally, the limitation "non-linear" as applied to a passageway is unclear. In this office action the limitation "a non-linear passageway" is taken to mean a passageway that is not a straight passageway but has "zigzag" portions as, for example, the passageway in Fig. 5 in Redemann et al.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3 – 5, 8 - 11 and 14 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ollivier (US 6,363,958) in view of Redemann et al. (US 6,293,310).

Ollivier discloses a semiconductor production assembly (2) utilizing a source of fluid, the mass flow control module (10) that can control fluid flow and be installed as a unitary component, comprising: a housing block member (7) having a fluid passageway (1) connected to the source of fluid, mounted on the housing block member from an upstream position is a pressure control valve unit (16), a flow rate sensor unit (5) and a flow rate control valve unit (22); a pressure sensor unit (16) operatively mounted in the fluid passageway; and a control unit (3) operatively connected to the pressure control valve unit, the flow rate sensor unit, the flow rate control valve unit and the pressure sensor unit whereby the control unit can automatically set and maintain a constant flow rate despite changes in fluid pressure. A second pressure sensor unit (6) is mounted between the pressure control valve (16) and the flow rate sensor (5) and operatively connected to the control unit (3).

The patent to Ollivier discloses the claimed invention with the exception of explicitly disclosing the housing block member to have a number of openings on an

upper surface that interface with a pressure control valve, a flow rate sensor and a flow control valve.

Redemann et al. discloses a gas panel in a variety of configurations (Figs. 1 – 57) wherein a housing block member (Fig. 5, 8, for example) has a number of openings on the upper surface for providing a modular interface with a pressure control valve, a flow rate sensor and a flow control valve, thereby reducing external piping connections and presenting a reduced foot print for the valve assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in Ollivier a housing block member having a number of openings on an upper surface that interface with a pressure control valve, a flow rate sensor and a flow control valve, for the purpose of providing a modular interface with a pressure control valve, a flow rate sensor and a flow control valve, thereby reducing external piping connections and presenting a reduced foot print for the valve assembly.

8. Claims 6, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ollivier and Redemann et al. as applied to claims 3 – 5, 8 - 11 and 14 – 17 above, and further in view of Moriya et al. (US 5,439,026).

The arrangement according to the combination of Ollivier and Redemann et al. discloses the claimed invention with the exception of explicitly disclosing a filter mounted upstream of the pressure control valve unit.

In the combination of Ollivier and Redemann et al., the filter is mounted downstream of the pressure control valve unit.

Moriya et al. discloses a filter (24b, c) mounted in the passageway upstream of a pressure control valve unit (27) for the purpose of providing a clean supply of fluid to all components downstream of the filter.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in the combination of Ollivier and Redemann et al., a filter mounted in the passageway upstream of a pressure control valve unit for the purpose of providing a clean supply of fluid to all components downstream of the filter, as recognized by Moriya et al.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramesh Krishnamurthy, Ph.D., PE
Primary Examiner
Art Unit 3753

Fig. 1

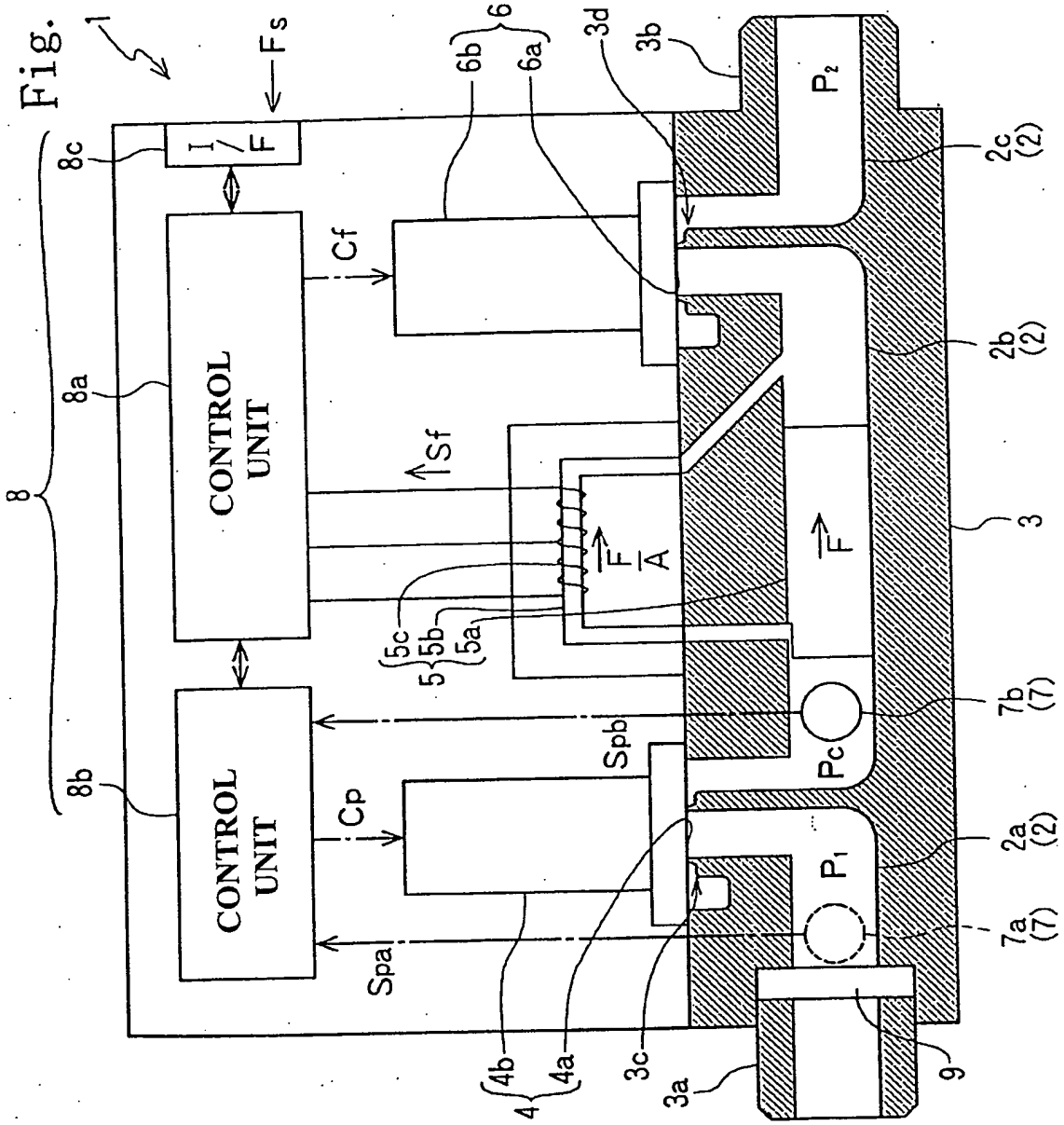

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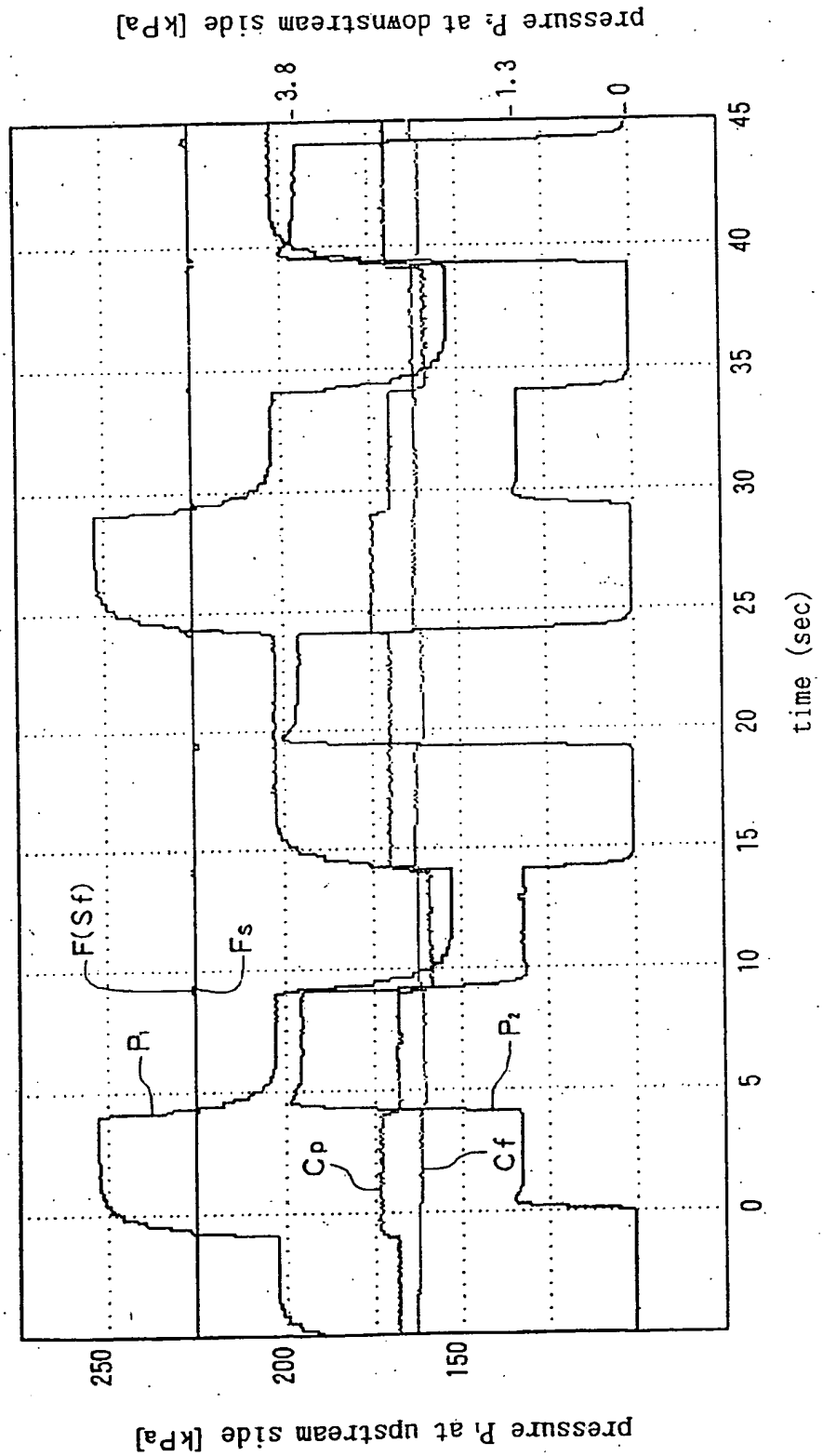
Fig. 2



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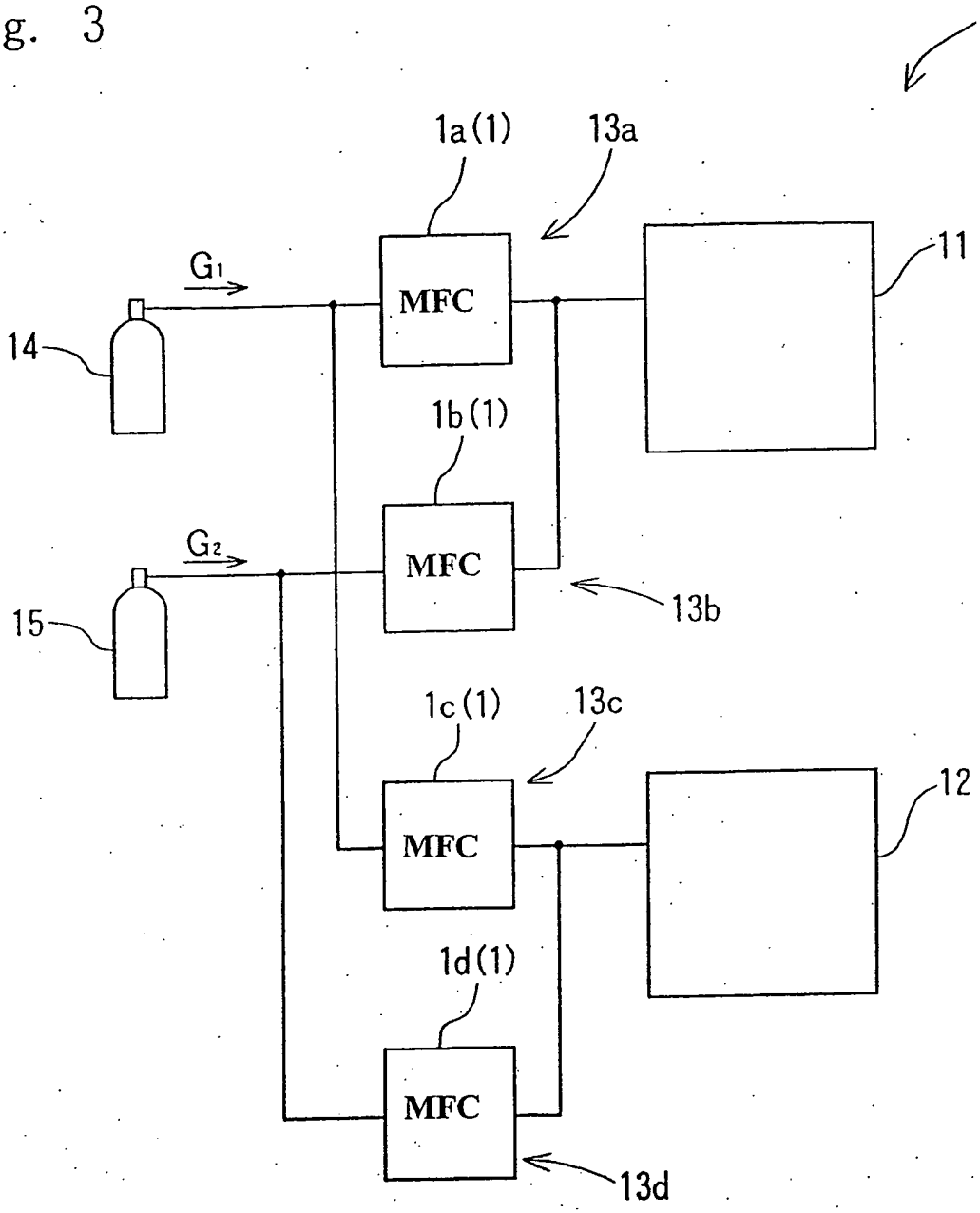
RK
02/18/07

Fig. 3



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PRIOR ART

Fig. 4

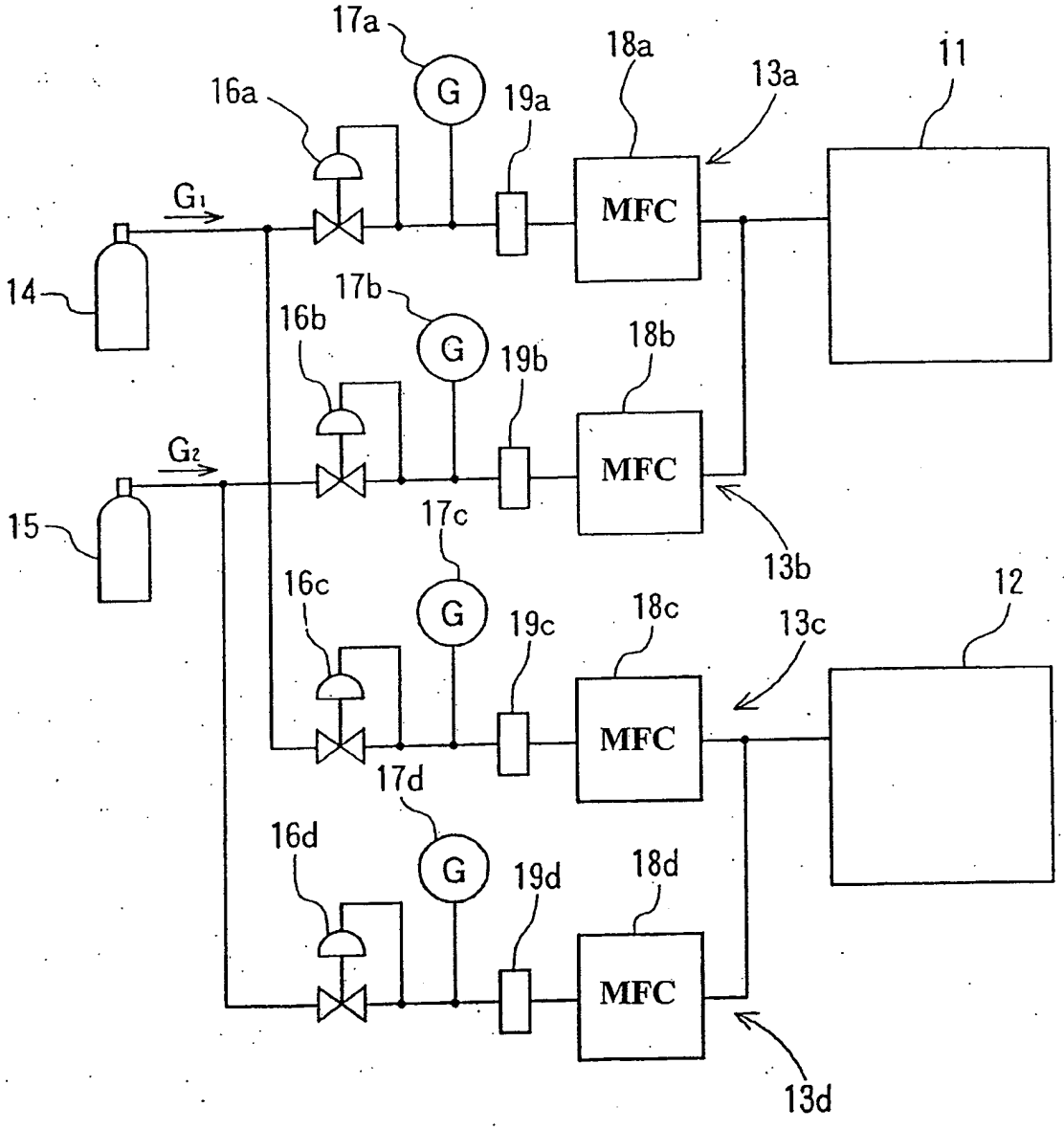

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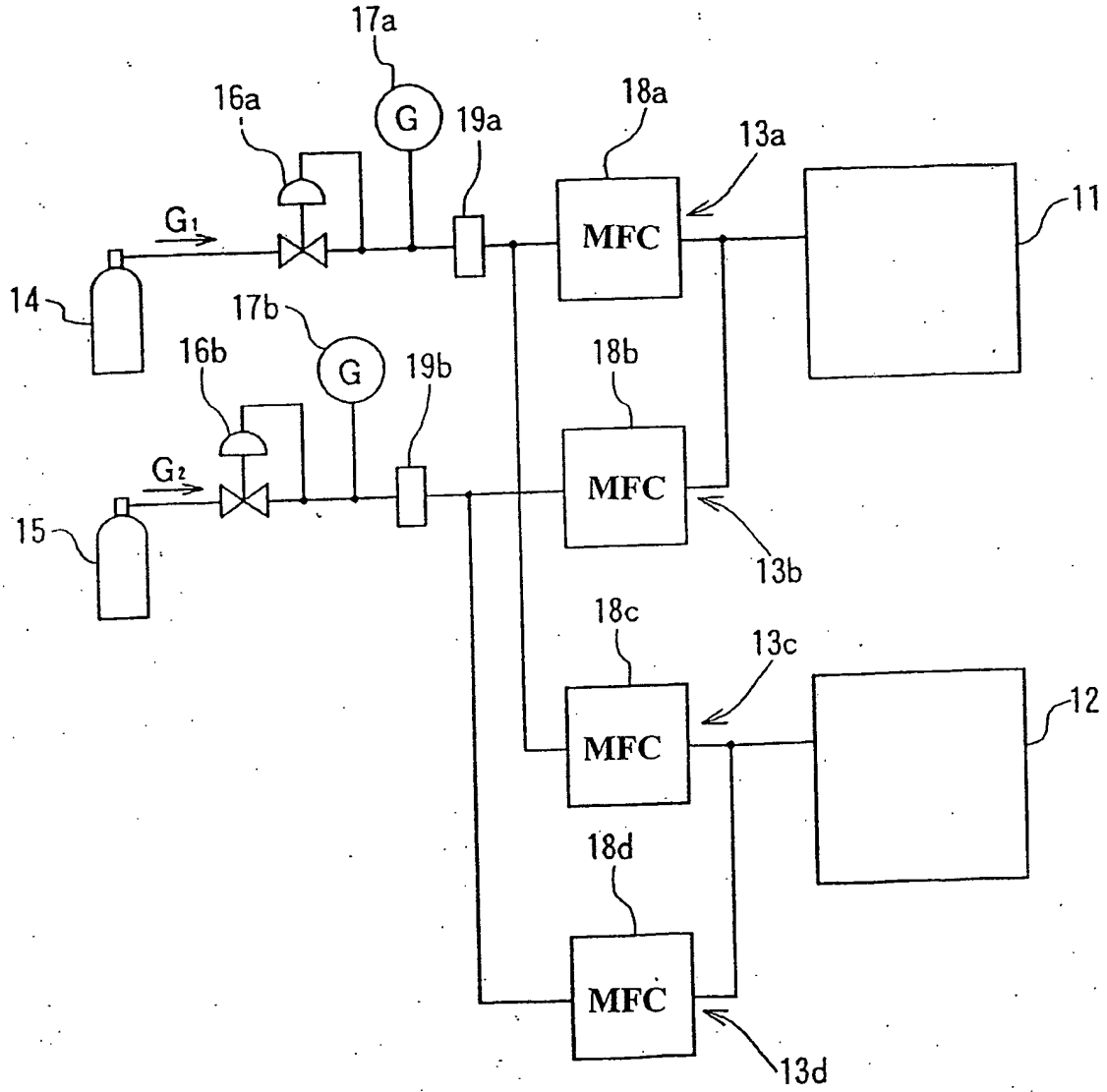
Fig. 5

PRIOR ART



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